

In the claims:

1. (Currently amended) A method of generating a mutant miniature tomato plant having a desired trait, the method comprising:

- (a) providing a population of miniature tomato plants having the following characteristics: (i) reduced size in comparison to a commercial tomato plant ~~of the same species~~; (ii) mature to produce viable seeds ~~or tubers~~ at a plant density of at least ten-fold higher than standard growth conditions used for said a commercial tomato plant ~~of the same species~~; and (iii) can be crossed with said a commercial tomato plant ~~of the same species~~;
- (b) treating said population of miniature tomato plants with a mutation-inducing agent to produce a mutant miniature tomato plant population; and
- (c) selecting a ~~the~~ mutant miniature tomato plant having the desired trait from said mutant miniature tomato plant population.

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Cancelled)

6. (Cancelled)

7. (Original) The method of claim 1, wherein said mutation-inducing agent in step (b) is a chemical mutagen selected from the group consisting of ethyl methanesulfonate (EMS), methyl methanesulfonate (MMS), methyl-N-nitrosourea (MNU), and bleomycins.

8. (Original) The method of claim 1, wherein said mutation-inducing agent in step (b) is irradiation selected from the group consisting of UV,  $\gamma$ -irradiation, X-rays, and fast neutrons.

- 9. (Withdrawn)
- 10. (Withdrawn)
- 11. (Withdrawn)
- 12. (Cancelled)
- 13. (Cancelled)
- 14. (Cancelled)
- 15. (Cancelled)
- 16. (Cancelled)
- 17. (Cancelled)
- 18. (Withdrawn)
- 19. (Withdrawn)
- 20. (Withdrawn)
- 21. (Withdrawn)
- 22. (Cancelled)
- 23. (Cancelled)
- 24. (Cancelled)
- 25. (Cancelled)
- 26. (Withdrawn)
- 27. (Withdrawn)
- 28. (Withdrawn)
- 29. (Withdrawn)
- 30. (Withdrawn)
- 31. (Withdrawn)
- 32. (Cancelled)
- 33. (Withdrawn)
- 34. (Withdrawn)
- 35. (Withdrawn)
- 36. (Withdrawn)

37. (Currently amended) A method of producing a commercial tomato plant with a desired trait, the method comprising:

(a) providing a population of miniature tomato plants having the

following characteristics: (i) reduced size in comparison to a commercial tomato plants ~~of the same species~~; (ii) mature to produce viable seeds ~~or tubers~~ at a plant density of at least ten-fold higher than standard growth conditions used for said commercial tomato plants ~~of the same species~~; and (iii) can be crossed with said commercial tomato plants ~~of the same species~~;

- (b) treating said population of miniature tomato plants with a mutation-inducing agent to produce a mutant miniature tomato plant population;
- (c) selecting a mutant miniature tomato plant having the desired trait from said mutant miniature tomato plant population;
- (d) crossing said mutant miniature tomato plant selected in step (c) with a commercial parent tomato plant ~~of the same species~~; and
- (e) selecting progeny which phenotypically resemble the said commercial parent tomato plant and express the said desired trait, thereby producing a the commercial tomato plant with the said desired trait.

38. (Previously amended) The method of claim 37, wherein said mutation-inducing agent is a chemical mutagen selected from the group consisting of ethyl methanesulfonate (EMS), methyl methanesulfonate (MMS), methyl-N-nitrosourea (MNU), and bleomycins.

39. (Previously amended) The method of claim 37, wherein said mutation-inducing agent is irradiation selected from the group consisting of UV,  $\gamma$ -irradiation X-rays, and fast neutrons.

40. (Cancelled)

41. (Cancelled)

42. (Cancelled)

43. (Cancelled)

44. (Cancelled)

45. (Withdrawn)